CLAIMS

1. An isolated nucleic acid molecule comprising at least one polynucleotide sequence, wherein the polynucleotide sequence is chosen from

(a) SEQ ID NOS.: 1-2, 4-5, 31-32, and 35-36;

(b) sequences that hybridize to the sequences of (a) under high stringency conditions;

(c) sequences having at least 80% sequence identity to the sequences of (a) or (b);

(d) complements of the sequences of (a), (b) or (c); and

(e) biologically active fragments of any of (a)-(d).

2. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is a DNA or a RNA molecule.

3. A double-stranded isolated nucleic acid molecule comprising the nucleic acid molecule of claim 1 and its complement.

4. The nucleic acid molecule of claim 1, wherein the polynucleotide sequence encodes a polypeptide or a biologically active fragment of the polypeptide.

5. A vector comprising the nucleic acid molecule of claim 1 and a promoter that regulates the expression of the nucleic acid molecule.

6. The vector of claim 5, wherein the promoter is chosen from one that is naturally contiguous to the nucleic acid molecule and a promoter that is not naturally contiguous to the nucleic acid molecule.

7. The vector of claim 5, wherein the promoter is a promoter chosen from an inducible promoter, a conditionally active promoter, a constitutive promoter, and a tissue specific promoter.

8. A recombinant host cell comprising the nucleic acid molecule of claim 1.

9. The host cell of claim 8, wherein the cell is a prokaryotic cell or a eukaryotic cell.

10. The host cell of claim 8, wherein the cell is a cell chosen from a human cell, a non-human mammalian cell, an insect cell, a fish cell, a plant cell, and a fungal cell.

11. An isolated polypeptide comprising an amino acid sequence, wherein the amino acid sequence is chosen from SEQ ID NOS.:7-8, 10-16, 17-18, 20-30, or a

biologically active fragment thereof, or is encoded by a polynucleotide sequence chosen from SEQ ID NOS.:1-2, 4-5, or a biologically active fragment thereof.

12. The polypeptide of claim 11, wherein the polypeptide comprises a non-transmembrane region.

13. The polypeptide of claim 12, wherein the polypeptide comprises an extracellular fragment.

14. A method of making a recombinant host cell comprising:

(a) providing a composition comprising the vector of claim 5, and

(b) allowing a host cell to come into contact with the vector to form a recombinant host cell.

15. A method of making a polypeptide comprising:

(a) providing a nucleic acid molecule encoding the polypeptide of claim 11;

(b) introducing the nucleic acid molecule into an expression system; and

(c) allowing the polypeptide to be produced.

16. A method of making a polypeptide comprising:

(a) providing a composition comprising the host cell of claim 8; and

(b) culturing the host cell to produce the polypeptide.

17. A method of determining the presence of the nucleic acid molecule of claim 1 in a sample comprising:

(a) providing a complement of the nucleic acid molecule or providing a complement to the complement of the nucleic acid molecule of claim 1;

(b) allowing the molecule to interact with the sample; and

(c) determining whether interaction has occurred.

18. A method of determining the presence of a specific antibody to the polypeptide of claim 11 in a sample, comprising:

(a) providing the polypeptide of claim 11;

(b) allowing the polypeptide to interact with a specific antibody in the sample, if present; and

(c) determining whether interaction has occurred.

19. A method of determining the presence of the polypeptide of claim 11 in a sample, comprising:

(a) providing an antibody that specifically binds to or interferes with the activity of the polypeptide;

(b) allowing the antibody to interact with the polypeptide in the sample, if any; and

(c) determining whether interaction has occurred.

20. An antibody specifically binding to and/or interfering with the biological activity of the nucleic acid molecule of claim 1 or a biologically active fragment thereof, or the polypeptide of claim 11 or a biologically active fragment thereof.

21. The antibody of claim 20, wherein the antibody is chosen from a monoclonal antibody, a polyclonal antibody, a single chain antibody, an Fab fragment, an antibody comprising a backbone of a molecule with an Ig domain, a V_H fragment, a V_L fragment, a cdr fragment, and a framework fragment.

22. The antibody of claim 20, wherein the antibody is chosen from a cytotoxic antibody, targeting antibody, an antibody agonist, an antibody antagonist, an antibody that promotes endocytosis of a target antigen, an antibody that mediates ADCC, and an antibody that mediates CDC.

23. The antibody of claim 20, wherein the antibody is chosen from a human antibody, a non-human primate antibody, a non-primate animal antibody, a rabbit antibody, a mouse antibody, a rat antibody, a sheep antibody, a goat antibody, a horse antibody, a porcine antibody, a cow antibody, a chicken antibody, a humanized antibody, a primatized antibody, and a chimeric antibody.

24. The antibody of claim 23, wherein the antibody comprises a cytotoxic antibody that comprises one or more cytotoxic component chosen from a radioisotope, a microbial toxin, a plant toxin, and a chemical compound.

25. The cytotoxic antibody of claim 20, wherein the chemical compound is chosen from doxorubicin and cisplatin.

26. A composition comprising a pharmaceutically acceptable carrier or excipient and one or more active agents chosen from the nucleic acid molecule of claim 1, the vector of claim 5, the polypeptide of claim 11, and the antibody of claim 20.

27. An antibody directed to a polypeptide encoded by a nucleic acid molecule encoded by a nucleic acid molecule with SEQ ID NO.:1-6.

28. A bacteriophage comprising the antibody of claim 20 or a fragment thereof.

29. A bacterial cell comprising the bacteriophage of claim 27.

30. A recombinant host cell that produces the antibody of claim 20.

31. An animal injected with one or more active agents chosen from the nucleic acid molecule of claim 1, the vector of claim 5, the host cell of claim 8, the polypeptide of claim 11, and the antibody of claim 20.

32. A diagnostic kit comprising a nucleic acid molecule, wherein the nucleic acid molecule comprises at least 6 contiguous nucleotides from the nucleic acid molecule of claim 1.

33. A diagnostic kit comprising a polypeptide molecule, wherein the polypeptide molecule comprises an amino acid sequence, wherein the amino acid sequence is chosen from SEQ ID NOS.:7-30 or a biologically active fragment thereof, or is encoded by a polynucleotide sequence chosen from SEQ ID NOS.1-2, 4-5, and reagents to carry out an immunoassay.

34. A diagnostic kit comprising the antibody of claim 20 and reagents to carry out an immunoassay.

35. A method of making an antibody, comprising:

(a) introducing an antigen chosen from the nucleic acid molecule of claim 1 or the polypeptide of claim 11 into an animal in an amount sufficient to elicit generation of antibodies specific to the antigen, and

(b) recovering the antibodies therefrom.

36. A method of identifying a modulating agent that modulates the biological activity of the polypeptide of claim 11 comprising:

(a) providing the polypeptide of claim 11;

(b) allowing at least one modulating agent to contact the polypeptide; and

(c) selecting an agent that modulates the biological activity of the polypeptide.

37. A modulator composition comprising a modulator and a pharmaceutically acceptable carrier, wherein the modulator is obtainable by the method of claim 36.

38. The modulator composition of claim 37, wherein the modulator is an antibody or a small molecule drug.

39. A method of treating a disease, disorder, syndrome, or condition in a subject, comprising administering the composition of claim 26 to the subject.

40. The method of claim 39, wherein the disease, disorder, syndrome, or condition is proliferative, inflammatory, immune related, or metabolic.

41. The method of claim 39, wherein the disease is cancer.

42. A method of treating cancer in a subject, comprising:

(a) providing an antibody composition of claim 26; and

(b) administering the antibody composition to the subject.

43. A method of treating kidney cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat kidney cancer.

44. A method of treating cervical cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat cervical cancer.

45. A method of treating squamous lung cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat squamous lung cancer.

46. A method of treating ovarian cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a

polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat ovarian cancer.

47. A method of treating bladder cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat bladder cancer.

48. A method of treating breast cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat breast cancer.

49. A method of treating endometrial cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat endometrial cancer.

50. A method of treating prostate cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat prostate cancer.

51. A method of treating skin cancer in a subject, comprising:

(a) providing the antibody composition of claim 26, wherein the antibody specifically binds to or interferes with the activity of a polypeptide chosen from SEQ ID NOS.:7-8, 10-18, 20-30, or an active fragment thereof; and

(b) administering an amount of the antibody composition to the subject effective to treat skin cancer.